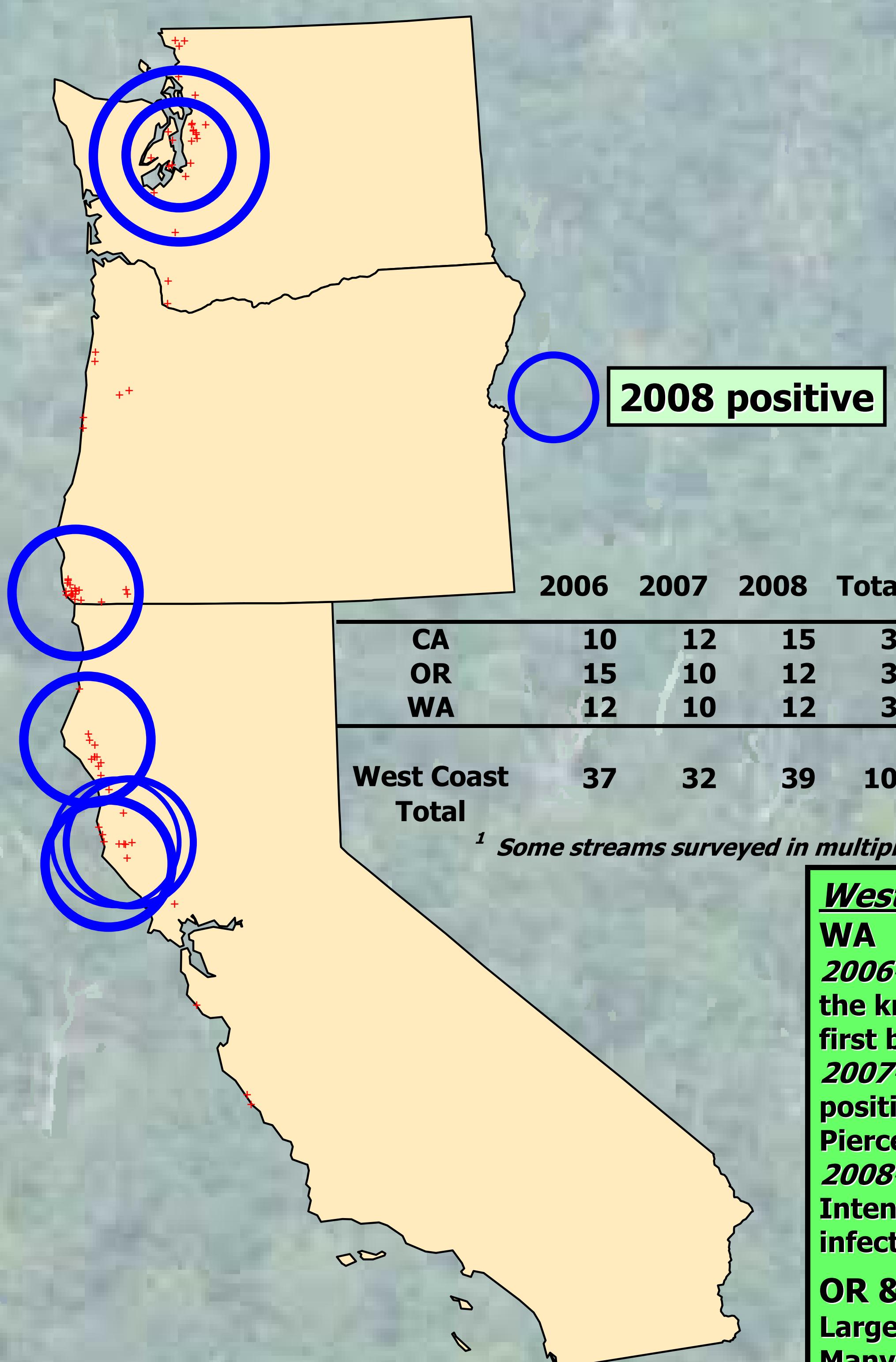


# National *Phytophthora ramorum* Early Detection Stream Surveys 2006-2008

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## ABSTRACT

The National *Phytophthora ramorum* Early Detection Survey first pilot tested stream surveys using rhododendron leaf baits in 11 states during 2006 after sustained successful use in OR and CA. Since that date, 320 unique streams in 28 states have been baited as part of the national survey.

The pilot survey bore immediate fruit when the pathogen was found in the first baiting period in a WA stream (outside of the known disease range in OR and CA). Additional detections were made in 2007 in a different WA stream, and in yet another in MS. In all three cases, the watersheds drained by the streams contained one or more woody ornamental nurseries with confirmed *P. ramorum*. Intensive vegetation surveys of all three stream environs failed to detect any established infection centers. However, positive PCR diagnostic results were obtained in MS from symptomatic plant tissue of three different associated host plant genera collected on two different survey dates. Additional baiting and vegetation surveys are planned in the MS watershed for the fall of 2008 to ensure that the pathogen has not become established in forest vegetation.

In addition to these new pathogen detections in forest ecosystems outside the disease range, the national survey has contributed to the identification of newly infested watersheds inside infested counties in OR (Curry) and CA (Mendocino, Humboldt). These are added to the many watersheds in those states found positive by baiting surveys that are not part of the national survey.

2008 positive

## West Coast Notes

### WA

2006- Pilot stream surveys initiated; first pathogen detection outside the known disease range is made in a Pierce Co. stream during the first baiting period proximal to an infested nursery.

2007- Second new detection in a King Co. stream. Several confirmed positive nurseries are in the watershed. Repeat detection in the Pierce Co. stream.

2008- Repeat detections in both Pierce and King Co. streams. Intensive streamside vegetation surveys find no established infections.

### OR & CA

Large-scale stream surveys pre-date the national survey.

Many positive streams have been found via large survey programs independent of the national survey.

2008- The national survey resulted in the expansion of the known disease range by 1 watershed in Curry Co., OR; 1 watershed in Humboldt Co., CA; and 3 watersheds in Mendocino Co., CA.

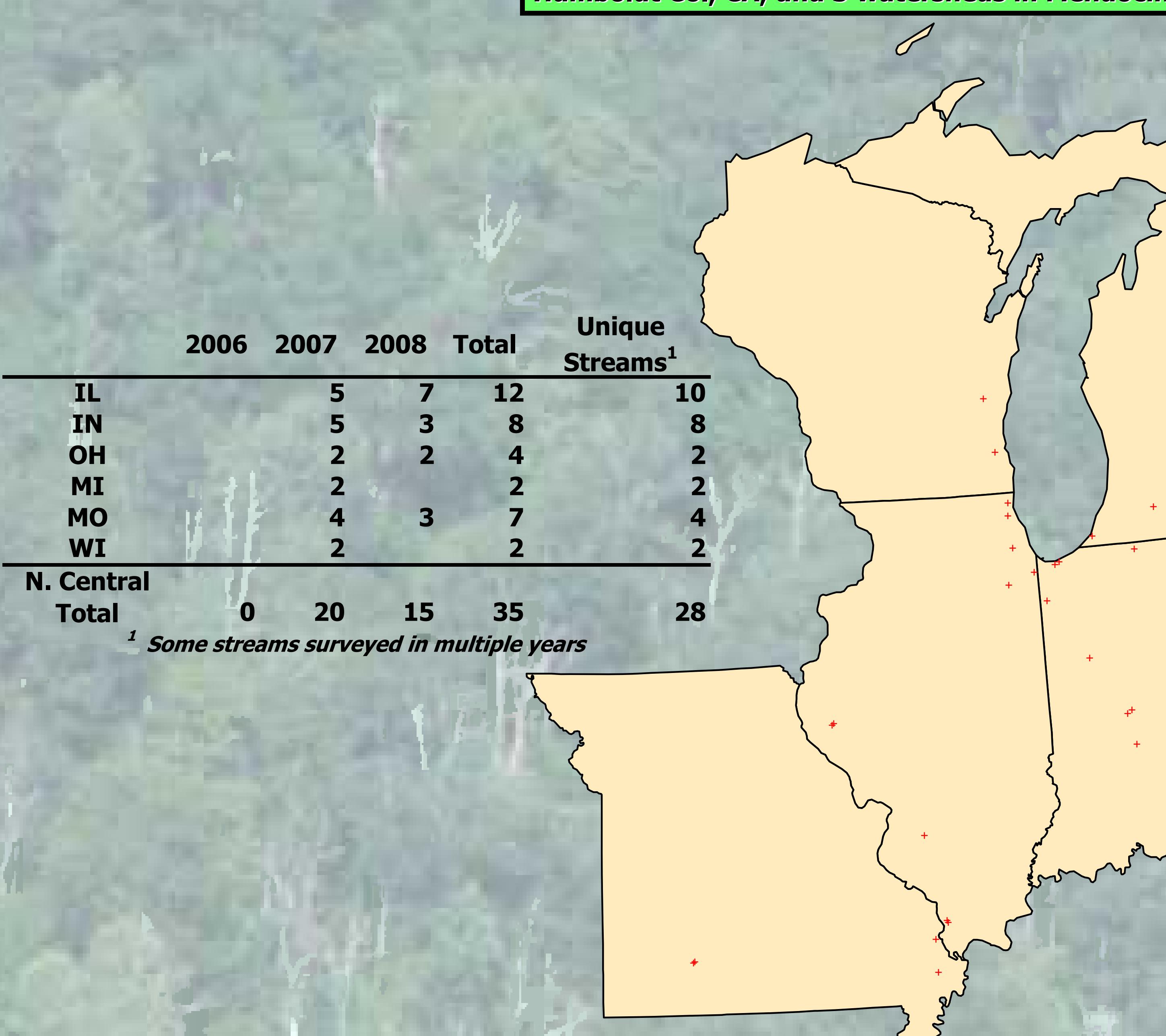


## South Notes

2006- 5 high risk states participate in the pilot survey.

2007- *P. ramorum* detected in a stream outside a confirmed positive nursery in Rankin Co., MS.

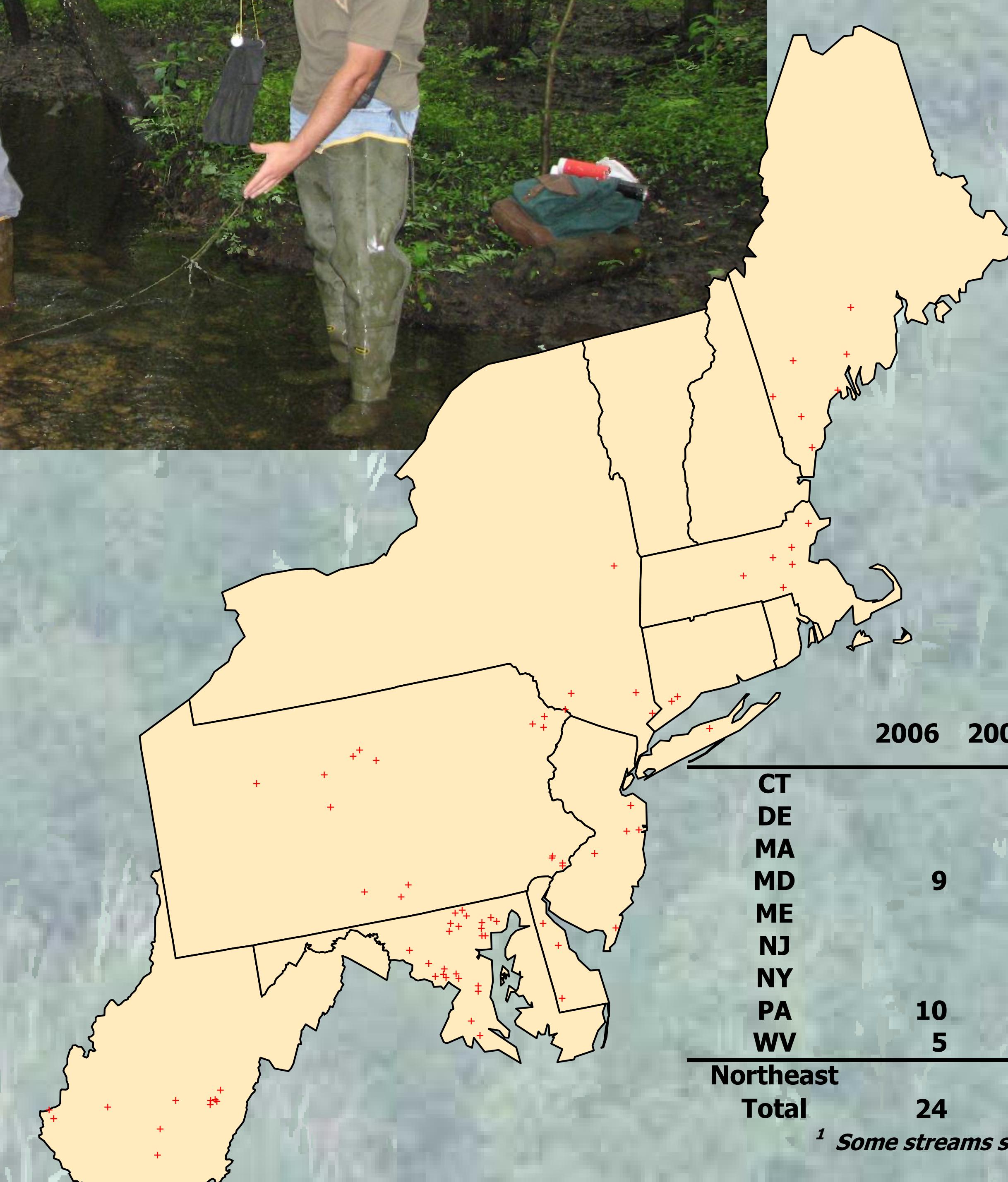
2008- Repeat detections made in the Rankin Co. stream; intensive streamside vegetation surveys result in 4 positive PCR results on 3 different associated host genera collected on 2 different dates. APHIS determines no established infection center; stream and vegetation surveys continue.



## North Central Notes

2007- Stream surveys are first conducted in IL, MI, and WI near sites with inconclusive diagnostic results from 2004-2006 vegetation surveys.

No *P. ramorum* detected 2007-2008.



## Northeast Notes

2006- 3 states with high risk area participate in pilot survey. No *P. ramorum* detected 2006-2008.

Stream Survey Totals By Region					
	2006	2007	2008	Total	Unique Streams <sup>1</sup>
West Coast	37	32	39	108	75
South	33	64	71	168	137
North Central	0	20	15	35	28
Northeast	24	37	29	90	80
National Total	94	153	154	401	320

<sup>1</sup> Some streams surveyed in multiple years